

# **Exhibit 2**

1 UNITED STATES DISTRICT COURT  
2 WESTERN DISTRICT OF TEXAS  
3 AUSTIN DIVISION  
4  
5 UMG RECORDINGS, INC., et al., )  
6 Plaintiffs, )  
7 vs. ) Case No.  
8 GRANDE COMMUNICATIONS NETWORKS ) 1:17-cv-00365-LY  
9 LLC, )  
10 Defendant. )  
11 \_\_\_\_\_ )

12  
13 \*\*HIGHLY CONFIDENTIAL - ATTORNEYS' EYES ONLY\*\*  
14

15 VIDEO DEPOSITION OF GREGORY H. BOSWELL  
16 30(b)(6) REPRESENTATIVE FOR RIGHTSCORP, INC.  
17 Santa Monica, California  
18

19 Wednesday, August 8, 2018  
20  
21  
22  
23  
24  
25

1 THE WITNESS: In 2011, 2012, by that point  
2 in time, all my work for Lockheed Martin or  
3 Northrop Grumman was done in SQL or Java.

4 The predominant languages I work in are  
5 Java and SQL. And SQL is the language for  
6 databases.

7 BY MR. BROPHY:

8 Q Are you proficient in other languages like  
9 C, C++, Fortran?

10 MR. O'BEIRNE: Objection. Compound.  
11 Vague.

12 THE WITNESS: I have done C, C++, Fortran.  
13 I would not -- I would not bill myself out on any of  
14 those languages. It's been a very, very, very long  
15 time since I've done them.

16 BY MR. BROPHY:

17 Q Okay. So when you were first developing  
18 the Rightscorp system, you were writing everything  
19 in Java; is that correct?

20 A That is correct.

21 Q Okay. And has that remained true until  
22 today? Is the predominance of the Rightscorp system  
23 written in Java?

24 A It is.

25 Q When you first began developing the

1 software, did you institute any type of change  
2 management system that would allow Rightscorp or  
3 yourself to track the changes in the source code  
4 over time?

5 A No.

6 Q When I say a "change management system," do  
7 you understand what I mean by that?

8 A Please define that.

9 Q Sure.

10 A change management system, as I'm  
11 describing it, is a system that you can put in place  
12 that keeps track of changes in source code over  
13 time.

14 So you can -- one example would be a system  
15 that allows you to check a file out from an archive,  
16 make changes to it, and then check it back in. And  
17 the system would keep track of the changes that were  
18 made, who made those changes, and when they were  
19 made so that you have a history, a timeline, of how  
20 the source code has evolved over time.

21 Are you comfortable with that -- using that  
22 definition for a change management system?

23 MR. O'BEIRNE: Objection. Vague. Calls  
24 for speculation.

25 You can answer.

1 THE WITNESS: I am comfortable with it.

2 And, no, we did not.

3 BY MR. BROPHY:

4 Q Have you ever used a change management  
5 system?

6 A Yes.

7 Q Where did you use that type of system?

8 A I used it for Countrywide Home Loans. We  
9 used it for Northrop Grumman -- or for  
10 Lockheed Martin.

11 Where else?

12 I have used it for some of my current  
13 customers.

14 Q When you were working with Northrop Grumman  
15 and Lockheed Martin, which change management system  
16 did you use, if you recall?

17 A Don't recall.

18 Q What about at Countrywide?

19 A Visual SourceSafe.

20 Q And which change management system do you  
21 use currently in your work?

22 A Rightscorp has Subversion.

23 Q I'm sorry. What's the name of that  
24 software?

25 A Subversion.

1 I also work with my clients in whatever  
2 systems they want.

3 Q So in addition -- if I understand your  
4 testimony, in addition to your work with Rightscorp,  
5 you also have other clients, and you use change  
6 management systems with those clients as well?

7 A Correct.

8 Q Okay. What are the names of the systems  
9 you use with those clients?

10 A They were Git-based systems.

11 Q Do you know the specific names?

12 A I believe GitHub is one of the repositories  
13 that my clients use.

14 Q Okay. When did Rightscorp first institute  
15 or begin using the Subversion change management  
16 tool?

17 MR. O'BEIRNE: Objection. Vague. Scope.  
18 You may answer.

19 THE WITNESS: Roundabout 2016.

20 BY MR. BROPHY:

21 Q This is a bit of an aside.

22 Do you understand that, in discovery in  
23 this case, Grande has requested change management  
24 logs or other information for the Rightscorp  
25 software?

1     **there's this ingestion where the Rightscorp system**  
2     **is told which copyrighted works it should be**  
3     **monitoring.**

4             **Do you agree with that?**

5             **MR. O'BEIRNE: Objection. Vague.**

6             THE WITNESS: Are you saying the first step  
7     is that it is a suggestion of what it should be  
8     monitoring?

9     BY MR. BROPHY:

10            **Q     Yeah. Why don't we do it a different way.**

11            **In your mind, what is the very first step**  
12     **of the Rightscorp system as of the date that we've**  
13     **identified?**

14            **MR. O'BEIRNE: Objection. Vague as to**  
15     **"step" and "system."**

16            THE WITNESS: Well, you know, in my mind,  
17     the very first step would be to have -- inform the  
18     Rightscorp system -- and, by the way, this is not  
19     necessarily a linear process. This is systems of  
20     systems.

21            But if we're going to take it from you, as  
22     a new customer coming into the system, the very  
23     first thing we would do is require information about  
24     the copyrights you'd like us to monitor.

25     BY MR. BROPHY:

1 But, basically, they're for music sampling  
2 and the sampling of -- the legal samples.

3 So one's music sampling, and one's legal  
4 samples.

5 **Q This Rightscorp SQL database that we've**  
6 **been discussing, is that the database that houses**  
7 **all of the information that Rightscorp takes in from**  
8 **various subscribers who are allegedly engaging in**  
9 **infringement?**

10 A Subscribers who are allegedly engaging --  
11 that is -- Rightscorp has many tables. One table is  
12 called "infractions," and in that table is the  
13 repository of the infringements that were found.

14 **Q And then, if I understand correctly, this**  
15 **other database warehouses music samples and legal**  
16 **samples; is that correct?**

17 **MR. O'BEIRNE: Objection. Vague. And**  
18 **compound.**

19 THE WITNESS: Yes and yes.

20 BY MR. BROPHY:

21 **Q Can you describe for me what you mean by**  
22 **"music samples."**

23 A Music samples is part of the ingestion  
24 process. And if you'd like to delve into that, this  
25 would be a good time.



1     **operation conversation.**

2           A     Where were we?

3           **Q     Well, we were talking through the**  
4     **RIAA Loader and the fact that the CVS file is**  
5     **polled.**

6           A     Right.

7           **Q     Polled with an O.**

8                   And the individual line items from that  
9     **spreadsheet are loaded into the tracks table within**  
10    **the Rightscorp database.**

11          A     Okay.

12          **Q     What happens next?**

13                   **MR. O'BEIRNE: Objection. Vague.**

14                   THE WITNESS: So we have a table of tracks  
15    that are owned. We need to now try to find torrents  
16    which indicate that they are sharing that pair  
17    combination. Okay?

18                   We have another process. So should I go  
19    into that process first?

20    BY MR. BROPHY:

21          **Q     Let's -- what is it named?**

22          A     That process is part of the ingestion  
23    process, but it is a separate subsystem of the  
24    ingestion process.

25          **Q     Is there a specific program?**

1           A       There are several different programs.

2           **Q       What is the first one we'll be talking**  
3           **about?**

4           A       We are going to be talking about -- and  
5       we'll talk about it over its life span. We're just  
6       going to be talking about the acquisition of the  
7       torrent. All right?

8           **Q       Is there -- is there a .java or a .class --**

9           A       Oh, it's a series of different pieces of  
10       code.

11          **Q       Okay.**

12          A       And they all have lived or died over  
13       the years.

14               And do you want to take a break before we  
15       go into this?

16          **Q       No, no. It's okay.**

17          A       So let me know when you're ready.

18          **Q       I'm ready.**

19          A       The Torrents are advertised generally on  
20       pirate sites. When you --

21          **Q       Can you give me -- I'm sorry. I didn't**  
22       **mean to interrupt you, but can you give me an**  
23       **example of some pirate sites?**

24          A       The current surviving pirate sites are  
25       thepiratebay.org.

1           **Q     Okay.**

2           A     All right?

3                   MR. O'BEIRNE:   So there's not now a pending  
4     question?

5                   I'm happy for the witness to give fulsome  
6     responses, but if we can try to make sure that  
7     there's -- we're pegging questions along the way so  
8     that I can be in a position to object rather than  
9     just say this is one big narrative. I don't want  
10    to --

11                  THE WITNESS:   This would be one big  
12    narrative.

13                  MR. O'BEIRNE:   I don't want to get in the  
14    way of your examination, but I don't want to have  
15    one big narrative because it doesn't allow me to  
16    interpose objections.

17                  MR. BROPHY:    Sure.

18                  MR. O'BEIRNE:   So to the extent that we can  
19    return to the line of questioning.

20                  So maybe we can pose a question to him that  
21    I can object to, if necessary, or not.

22                  MR. BROPHY:    That's more dictated by the  
23    witness's answer than my question, but in any event.

24           **Q     Are there other websites besides Pirate Bay**  
25    **that you're aware of that are commonly used to**

1 **gather .torrent information from?**

2 A Yeah. There are several others.

3 **Q Can you give me some examples?**

4 A Well, Kickass Torrents used to be around.  
5 I believe it's gone now.

6 **Q Any others?**

7 A Huh?

8 **Q Any others?**

9 A There's demonoid.ph. It has come and gone  
10 and come again.

11 There's -- it's -- the word is really  
12 "elite," but it's 3733L. And I can't remember if  
13 it's .edu or what it is, but it's one of the  
14 surviving ones.

15 There's a few others that do not have any  
16 real name to them as much as they are just an  
17 assembly of letters that the developers have used.

18 **Q Okay. So you were talking about the**  
19 **ingestion process.**

20 A Right.

21 **Q So what is -- what is next in that process?**

22 A Well, in this aspect of that process, we  
23 need to find Torrents. We need to find Torrents  
24 that potentially match our client's base.

25 **Q How does the Rightscorp system accomplish**

1 database onto that computer to do a blind analysis.

2 **Q Okay.**

3 A So, then, this third-party software will  
4 digest this blind song. It's blind because it has  
5 no name on it. Just has the GUID. And it will  
6 digest it and send this information off to a  
7 third-party system.

8 This third-party system comes back with  
9 what it thinks it is.

10 **Q A moment ago you identified two different**  
11 **services. One was AcoustID, and the other one is**  
12 **Audible Magic.**

13 A Correct.

14 **Q My understanding is that Rightscorp used**  
15 **Audible Magic some time ago and then stopped. Is**  
16 **that correct?**

17 A That's correct.

18 **Q When did Audible Magic first -- when did**  
19 **Rightscorp first use Audible Magic?**

20 A I don't recall. It's when we started going  
21 to this automatic process. We're probably looking  
22 at 2012, 2013. In there.

23 **Q Prior to Rightscorp beginning to use**  
24 **Audible Magic, how did it perform a matching between**  
25 **a downloaded music file and the copyrighted works**

1     **that it was tracking?**

2           A     Very painfully.

3                   So the music -- prior to this whole  
4     process, there was a manual process.  Someone would  
5     get on a BitTorrent client and download the song.  
6     And this was not me.  This would be the people in  
7     charge of copyrights.  And they would listen and  
8     compare that song to something that was provided to  
9     us.  If that was a human match, then they matched  
10    that song to the system.

11           **Q     Did the rights holders provide the actual**  
12    **true song to Rightscorp for purposes of that**  
13    **analysis?**

14                   **MR. O'BEIRNE:  Objection.  Vague.**

15                   THE WITNESS:  Out of my domain.  I was not  
16    part of the verification process at that point.

17    BY MR. BROPHY:

18           **Q     Who was?**

19           A     That would have been -- well, Robert Steele  
20    ran the process.  Christopher Sabec would know.

21           **Q     In preparing for your testimony today, did**  
22    **you speak with Robert Steele or Chris Sabec to**  
23    **understand this aspect of the operation of the**  
24    **Rightscorp system?**

25                   **MR. O'BEIRNE:  I object -- hold on a**

1     **second.**

2                   **I object that this is outside of the scope.**  
3     **Mr. Sabec was offered on the two specific topics**  
4     **about which copyrights were chosen and ingested from**  
5     **clients and entered into the system. And so it's**  
6     **outside of the witness's noticed topics.**

7                   **But you can answer.**

8                   THE WITNESS: I haven't chatted with Robert  
9     or Christopher about this.

10                  MR. BROPHY: So just to be clear, this is  
11     absolutely within the set of topics he's been  
12     produced for. This is a step in the Rightscorp  
13     system process, and that's what we're discussing  
14     today.

15                  So we can discuss that afterwards, but  
16     we're going to want somebody who's prepared to talk  
17     about this.

18                  MR. O'BEIRNE: I disagree. My objection is  
19     on the record. We can talk about it.

20     BY MR. BROPHY:

21                  **Q     When Rightscorp switched to -- let me back**  
22     **up and ask a few more questions.**

23                  **Are you aware of any instance in which a**  
24     **client of Rightscorp's provided actual music files**  
25     **to Rightscorp in order to do its file matching?**

1                   **MR. O'BEIRNE: Objection. Outside the**  
2   **scope.**

3                   THE WITNESS: That would not have been in  
4   my domain.

5   BY MR. BROPHY:

6           **Q     Are you aware of an instance in which they**  
7   **did send those files?**

8                   **MR. O'BEIRNE: Same.**

9                   THE WITNESS: Outside of my domain. It's  
10   outside my wheelhouse.

11   BY MR. BROPHY:

12           **Q     So does that mean you're not aware of any**  
13   **instance in which they sent a file?**

14                   **MR. O'BEIRNE: Same.**

15                   **You can answer if you know.**

16                   THE WITNESS: I don't know one way or the  
17   other.

18   BY MR. BROPHY:

19           **Q     Is it fair for me to say that you're not**  
20   **personally aware of any instance?**

21           A     I am not personally aware of any instance.

22           **Q     Are you aware of other ways in which**  
23   **Rightscorp would perform or could perform the human**  
24   **matching that you described?**

25           A     Yes.



1           **Q     And what's that?**

2           A     Well, they could go to one of the  
3     customer's websites, listen to a trailer. Watch a  
4     trailer.

5                     They could go to the customer's YouTube  
6     channel and watch a trailer of the song, the music.  
7     There are plenty of -- I'm trying to think.

8                     I believe at one point in time one of the  
9     customers gave us access to their private channels.  
10    But I believe that was in the movie industry.

11          **Q     You keep saying "trailer."**

12          A     Well, I'm sorry. That's -- because, when I  
13    think of YouTube, I think of movies. I don't think  
14    of music.

15          **Q     So focusing specifically on the music**  
16    **category for a moment, are there ways you're aware**  
17    **of that Rightscorp could perform this human matching**  
18    **that we've been discussing?**

19          A     Yes, there are ways.

20          **Q     What are those ways?**

21          A     I just stated them.

22          **Q     So we've talked about going to YouTube**  
23    **channels to watch trailers or customers' websites to**  
24    **watch trailers --**

25          A     Should we change the word to "videos"?

1           Q     Okay.  So -- I understand.

2                     So you're saying that someone from  
3     Rightscorp could go to YouTube and watch a music  
4     video for one of the songs?

5           A     If it was on the customer's channel.

6           Q     Is there any way that Rightscorp could  
7     verify or determine whether that music video was an  
8     accurate example of the copyrighted work that it was  
9     asked to monitor?

10          A     Now you're out of my domain.

11          Q     Are you aware of any steps that Rightscorp  
12     took to verify that the materials it was reviewing  
13     to perform its human matching actually represented  
14     the copyrighted work it was asked to monitor?

15                     MR. O'BEIRNE:  Objection.  Scope.  And  
16     misstates prior testimony.

17                     You can answer.

18                     THE WITNESS:  I'm lost on that question.  
19     Can you re-ask it for me.

20     BY MR. BROPHY:

21          Q     Sure.

22                     I'm wondering if you're aware of any way in  
23     which Rightscorp attempted to verify that the song  
24     it was using to match against this unknown file was  
25     actually a song that accurately reproduced the

1     **copyrighted work that Rightscorp was asked to**  
2     **monitor.**

3             **MR. O'BEIRNE: Same.**

4             THE WITNESS: Well, the people in charge of  
5     verifying the copyrights -- we'll listen to the  
6     sirens as they go by for a second.

7             That's the third time today, isn't it?

8     BY MR. BROPHY:

9             **Q     Go ahead.**

10            A     The people in charge of verifying the  
11     copyrights would either have figured out or have  
12     been told why they can verify that.

13            Again, I'm the software end of it. I do  
14     not do the manual verification of the copyrights.

15            **Q     And that would have been "Victor" or Jeff;**  
16     **is that correct?**

17            A     "Victor" or Jeff.

18            **Q     Did you, in preparation for your deposition**  
19     **today, speak with either of them to understand how**  
20     **this process was performed?**

21            A     No. Because -- I didn't.

22            **Q     Do they work at Rightscorp still?**

23            A     No, they don't.

24            **Q     When did they cease their employment with**  
25     **Rightscorp?**

1 A Do not know.

2 Q Rough ballpark?

3 A Do not know.

4 Q I'll ask one more.

5 Within the last few years, or has it been  
6 quite some time?

7 A Jeff would have been a few years ago.

8 Victor -- Vincent. It's not Victor.

9 Q I'm sorry.

10 A It's Vincent.

11 Q Thank you.

12 A Vincent, probably at the end of last year.

13 Q So in 2012 or 2013, Rightscorp transitioned  
14 to using Audible Magic to do its song matching; is  
15 that correct?

16 A Uh-huh.

17 Q And is Audible Magic a commercial solution?

18 A Yes.

19 Q And so does Rightscorp pay money to  
20 Audible Magic to perform those services for it?

21 A Well, we're going to have to say did  
22 Audible Magic pay. Yes.

23 Q Thank you. Thank you.

24 A It did.

25 Q And would you describe for me how the

1 torrent copyrights. It would be -- this table is  
2 accessible through a manual process, then.

3 BY MR. BROPHY:

4 Q So at this point, the Rightscorp system  
5 says is there an exact match between the tracks  
6 table and the result from Audible Magic?

7 A Uh-huh.

8 Q If the answer is yes, populate the torrents  
9 copyright table?

10 A Right.

11 Q What happens if there's not an exact match?

12 A Well, then we have a process where the  
13 copyright people can intervene.

14 So they have a JSP page they can pull up  
15 off the website. And, say, "I'm curious. I'm going  
16 to do a keyword search for Drake."

17 Type in Drake. Anything that pops up with  
18 the word "Drake" in it will appear on this page.  
19 All right?

20 Q And I'm sorry. They've just searched which  
21 database to get --

22 A They have searched this torrent files  
23 table.

24 The torrent files table that we are talking  
25 about that has the entry, the artist and the song

1 name and the GUID. Sample GUID.

2 They have another tool that they can pop up  
3 and just put in a query, or they can look at the  
4 latest updates.

5 And oh, my God. The name has slipped  
6 around, as you said. They can go over here and play  
7 the song, yeah. That's the song it is, but the name  
8 is flipped around.

9 They can go in and say, "Okay. This is  
10 really this song." Modify the entry. It's logged  
11 that they've modified, that they've manually put it  
12 in, and it goes into the torrents copyright.

13 Or, again, the famous one, Kesha with an S  
14 instead of a -- or someone put a Z in instead of a  
15 dollar sign. Or one of the four Tupac spellings.

16 **Q So if I understand you correctly, when**  
17 **there is not an exact match between the**  
18 **Audible Magic song title and artist and the tracks**  
19 **table, that result gets flagged for human review; is**  
20 **that correct?**

21 A It doesn't get flagged as much as it's left  
22 for human review.

23 In other words -- I'm sorry. Go ahead.

24 **Q Well, does it go into a purgatory where it**  
25 **doesn't get processed or watched in any way until a**

1     **human intervenes?**

2                   **MR. O'BEIRNE: Objection. Vague as to**  
3     **"purgatory."**

4                   MR. BROPHY: Isn't that true?

5                   THE WITNESS: For those who have purgatory,  
6     yes, it goes into purgatory. It is -- anything that  
7     is not matched is in purgatory.

8                   And there's another aspect of purgatory.

9                   So let's say we have downloaded a song --

10                  Well, I'll wait for a question. I could  
11     talk all night long.

12     BY MR. BROPHY:

13                  **Q     No. It's fine. I appreciate that.**

14                   **Go ahead, if you wouldn't mind, explaining**  
15     **what the other aspect is that you were going to**  
16     **describe.**

17                  A     Well, besides the manual intervention, at  
18     some point in the future, we may have downloaded a  
19     song that we thought was our customer's but it isn't  
20     our customer's right now. So there it sits. Right?

21                  But later another customer comes along and  
22     says, "We own that song." They give us the tracks,  
23     and we push a button that says "rematch." And it  
24     says, "Oh, yeah. We've already downloaded that  
25     song. Here's a perfect match." You're out of

1 purgatory now.

2 So when we do a rematch, we rematch against  
3 things that are already there with potential new  
4 tracks that have just come in.

5 Q In that instance you just gave me, why is  
6 Rightscorp not committing copyright infringement  
7 when it downloaded that song in the first instance?

8 MR. O'BEIRNE: Objection. Outside the  
9 scope. Calls for a legal conclusion.

10 THE WITNESS: Definitely I'm not a lawyer.  
11 I can't "ask" to that.

12 BY MR. BROPHY:

13 Q So we have a copyright personnel who  
14 intervenes at Rightscorp, and they would presumably  
15 find the match, fix the names or whatever; is that  
16 right?

17 MR. O'BEIRNE: Hold on.

18 Objection. Misstates testimony. Vague.

19 THE WITNESS: There's a copyright person  
20 who has the power to necessarily fix any  
21 misspellings or take things out of torrent  
22 copyrights, if they don't want to take them out of  
23 the torrent copyrights page or enter them in, based  
24 off of their knowledge of the copyright.

25 BY MR. BROPHY:



1           Q     And that includes potentially reviewing the  
2     alphanumeric song title and artist name; is that  
3     correct?

4                   MR. O'BEIRNE:  Objection.  Misstates  
5     testimony.

6                   THE WITNESS:  That is potentially reviewing  
7     the alphanumeric copyright -- yes.

8     BY MR. BROPHY:

9           Q     And it's also potentially listening to the  
10    downloaded song and comparing it to the song owned  
11    by the copyright owner?

12                   MR. O'BEIRNE:  Same.  You can answer.

13                   THE WITNESS:  Yes.

14    BY MR. BROPHY:

15           Q     Where do they get the song that they  
16    compare the downloaded song to to see whether  
17    they're a match?

18                   MR. O'BEIRNE:  Objection.  Vague.

19                   THE WITNESS:  That is up to them.  I  
20    believe we've discussed this in the previous manual  
21    process.

22    BY MR. BROPHY:

23           Q     So do you have any information sitting here  
24    today about where that -- we'll call it truth  
25    data -- comes from?

1                   **MR. O'BEIRNE: Object. Mischaracterizing**  
2   **the testimony. And vague.**

3                   THE WITNESS: Outside of my scope.

4   BY MR. BROPHY:

5           **Q Did you speak to Vincent or Jeff in**  
6   **preparation for your deposition today about this**  
7   **aspect of the Rightscorp system?**

8           A With regards to where they get their data  
9   from?

10          **Q Yes.**

11          A No.

12          **Q What about with regard to how they**  
13   **performed that matching analysis?**

14          A No. I have not spoken to them about that  
15   today.

16          **Q And you didn't speak with them about it in**  
17   **preparation for today; is that correct?**

18          A In preparation for today, no.

19          **Q So let's move forward with the**  
20   **understanding that at this point all the copyright**  
21   **team has matched as many of the files downloaded**  
22   **with copyrighted works as possible.**

23                   What happens next in the process?

24                   **MR. O'BEIRNE: Object to the**  
25   **characterization.**

1                   **What is the name of that other source?**

2           A       AcoustID.

3           **Q       And what is AcoustID?**

4           A       It is an open source identification tool  
5       for matching content.

6           **Q       When did Rightscorp first begin using**  
7       **AcoustID?**

8           A       I think I spoke to that before. I don't  
9       recall the exact date.

10          **Q       Rough.**

11          A       We're probably talking 2013 again, 2014.

12          **Q       Was there any period of time during which**  
13       **AcoustID and Audible Magic were being used at the**  
14       **same time?**

15          A       Yes.

16          **Q       What time frame?**

17          A       Again, the 2013, 2014 time frame.

18          **Q       So after 2014, was Rightscorp exclusively**  
19       **using AcoustID?**

20          A       I believe so. Somewhere after that time  
21       frame, yeah.

22          **Q       Give me just one moment. Apologies.**

23                   **Is there any information that was produced**  
24       **by Rightscorp in this case that would allow us to**  
25       **nail down the specific date on which AcoustID began**

1           **Q     Which of the files that were produced in**  
2           **the laptop did you personally zip and name?**

3           A     The one with the current database.  
4           Code 2018.

5           **Q     Is that the only one that you personally**  
6           **zipped and named?**

7           A     The only one I can guarantee I personally  
8           zipped and named.

9           **Q     If there are dates on other zipped files --**  
10           **Are you aware that there are dates on other**  
11           **of the zipped files that were produced on the**  
12           **laptop?**

13          A     Yes.

14          **Q     Do you know where those dates came from?**

15          A     If they were produced by me, I did them.  
16          But I don't know.

17          **Q     Well, I believe you just testified that the**  
18           **2018 file you can say with certainty that date is**  
19           **correct because you zipped that file and you dated**  
20           **it. Is that correct?**

21          A     Correct.

22          **Q     Are there other files on the laptop that**  
23           **were produced by Rightscorp that you can say the**  
24           **same thing about?**

25          A     With 100 percent certainty?

1 Q Yes.

2 A No.

3 Q If hypothetically there is a 2015 ZIP file,  
4 how do we know that represents 2015 source code?

5 A If I didn't do it, don't know.

6 Q So I think -- pardon that diversion. We  
7 had gotten to the point in the process where the  
8 Rightscorp system had performed some kind of  
9 matching, whether using Audible Magic or AcoustID,  
10 and we were discussing the match-against function.

11 And I believe your testimony was you don't  
12 have specific recall of how that match-against  
13 function was actually being operated; is that  
14 correct?

15 MR. O'BEIRNE: Objection. Mischaracterizes  
16 testimony.

17 THE WITNESS: Not exactly correct.

18 BY MR. BROPHY:

19 Q Okay. Would you correct my statement,  
20 then.

21 MR. O'BEIRNE: Objection. Form.

22 THE WITNESS: I don't have  
23 down-in-the-weeds knowledge at this very moment in  
24 time on how that function worked, if it was  
25 returning just the first instance of a connection or

1           **Q     And I'm sorry. Would you say that last bit**  
2           **again? I apologize. I had a brain moment. Help me**  
3           **stay on track. Give me the last bit of that.**

4           **A     It would take the torrent -- again, let's**  
5           **say it was a Nirvana torrent.**

6                   It said that it was a Nirvana torrent and  
7           with a Nirvana name. And if we had a match for  
8           Nirvana in that song, then it would say, "Okay,  
9           well, it's Nirvana." And it's Nirvana. The artist  
10          is Nirvana. And it'd say, "Okay, it says it's  
11          Nirvana. AcoustID says it's Nirvana. That's  
12          Nirvana. And this is the song name for it."

13          **Q     I'm going to jump back for one second.**

14                   **Does Rightscorp save the hit results from**  
15          **either the Audible Magic or AcoustID software?**

16                   **MR. O'BEIRNE: Objection. Vague.**

17                   THE WITNESS: You mean all the results?

18          BY MR. BROPHY:

19          **Q     Yes.**

20          **A     No.**

21          **Q     So if there were four results, Rightscorp**  
22          **doesn't save all four of those hits?**

23          **A     No.**

24          **Q     Does it save the single hit?**

25          **A     Yes.**

1                   **MR. O'BEIRNE: Objection. Vague and**  
2                   **compound.**

3                   THE WITNESS: It provided an executable,  
4                   and I believe it provided an example of how to  
5                   interact with that in multiple languages.

6                   BY MR. BROPHY:

7                   **Q       When Rightscorp uses AcoustID to perform**  
8                   **its matching, does it execute the executable**  
9                   **provided in the development kit?**

10                  **MR. O'BEIRNE: Objection. Vague.**

11                  THE WITNESS: Yes.

12                  BY MR. BROPHY:

13                  **Q       And in what form did the results of the**  
14                  **AcoustID software come? I'll give you some context**  
15                  **for that.**

16                  Rightscorp runs the AcoustID executable.  
17                  It passes in these inputs in the form of a file it  
18                  wants to identify, and then presumably the software  
19                  spits out a result; right?

20                  What form does that result come in?

21                  A       I believe it comes in a stream in XML  
22                  format.

23                  **Q       So it's some alphanumeric output in XML?**

24                  A       Yes.

25                  **Q       Does Rightscorp retain those XML outputs?**

1                   **MR. O'BEIRNE:** Objection. Vague.

2                   **THE WITNESS:** No.

3       BY MR. BROPHY:

4           **Q**       So if I understand correctly, what  
5       **Rightscorp** does is it extracts from that XML the  
6       **alphanumeric** for the song and artist and then loads  
7       that information into its database; is that correct?

8           A       Yes.

9           **Q**       Okay. So what -- going back to where we  
10       were in the process.

11          A       Okay.

12          **Q**       You had talked about Nirvana and  
13       **identifying a match with Nirvana.**

14          A       Uh-huh.

15          **Q**       What happens next in the system?

16          A       Now I have to really stop and think again.  
17                   So we're at the point where the service has  
18       identified -- given us a match saying, "Yeah, this  
19       is a Nirvana song, and this is what we think it is,  
20       and this is what we've got."

21                   Goes into our system. Our system says,  
22       "Okay" -- I can't remember the code at this late  
23       hour now -- that goes up and says, "I can match that  
24       song and that artist to a track that our customer  
25       has given us," or we represent.



1 information it received from the tracker servers?

2 MR. O'BEIRNE: Objection. Vague.

3 THE WITNESS: Please ask me that question  
4 again.

5 BY MR. BROPHY:

6 Q Sure. It's okay.

7 This infringement bot would reach out to a  
8 tracker and receive via UDP a binary-formatted file  
9 which contained information about the various  
10 members of the swarm; is that correct?

11 A Uh-huh.

12 Q Did Rightscorp retain the UDP binary format  
13 of message it received from the tracker server?

14 MR. O'BEIRNE: Objection. Vague as to  
15 "retain" and as to time.

16 THE WITNESS: No.

17 BY MR. BROPHY:

18 Q Did it retain that information in 2014?

19 MR. O'BEIRNE: Same objections except as to  
20 time.

21 THE WITNESS: I answered that question.

22 BY MR. BROPHY:

23 Q Well, so your counsel's objecting as to  
24 vague as to time. And so I'm trying to break it  
25 into smaller pieces to get a more clear answer.

1 A I'm sorry.

2 Q It's okay.

3 So in 2014, did Rightscorp retain those  
4 materials?

5 A No.

6 MR. O'BEIRNE: I'm sorry. Objection.  
7 Vague as to "retain."

8 BY MR. BROPHY:

9 Q In 2015, did Rightscorp retain those  
10 materials?

11 MR. O'BEIRNE: Same objection.

12 You can answer.

13 THE WITNESS: That process never retained  
14 those materials.

15 BY MR. BROPHY:

16 Q And that's true from 2014 until today?

17 A That process no longer runs.

18 Q And when we say "that process," are we  
19 talking about the infringement bot process?

20 A Correct.

21 Q When did that process stop running?

22 A That process stopped running shortly after  
23 the Cox case was done.

24 Q What rough time frame is that?

25 A When would be, what, early 2015. Something

1           A       Pocket makes a connection to a BitTorrent  
2       client and gathers the handshake and brings it back.

3           **Q       From 2015 until today, what process within**  
4       **the Rightscorp system is responsible for reaching**  
5       **out to the tracker and identifying the IP addresses**  
6       **and ports of the members of the swarm?**

7           A       Memphis.

8           **Q       Okay. So I did them in the wrong order.**

9           A       That's right.

10          **Q       So let's talk about Memphis for a moment.**  
11       **Would you explain to me what Memphis does.**

12       **MR. O'BEIRNE: Objection. Vague.**

13       THE WITNESS: Basically, Memphis goes out,  
14       gets a list of torrent hashes -- or gets a torrent  
15       hash, goes out to the trackers, talks to them, gets  
16       the swarm data, and brings them back.

17       BY MR. BROPHY:

18          **Q       So Memphis is responsible for reaching out**  
19       **to the tracker servers and retrieving the UDP binary**  
20       **formatted information about the swarm; is that**  
21       **correct?**

22       **MR. O'BEIRNE: Objection. Mischaracterizes**  
23       **testimony.**

24       THE WITNESS: Memphis reaches out, takes  
25       the binary information, converts it back to port/IP

1 pairs, and sends it back to the system.

2 BY MR. BROPHY:

3 Q Okay. Does Memphis retain the UDP binary  
4 formatted material that it receives from the tracker  
5 website?

6 MR. O'BEIRNE: Object. Vague as to  
7 "retain."

8 And you can answer.

9 THE WITNESS: I'm just waiting for him to  
10 be done.

11 BY MR. BROPHY:

12 Q You can go ahead.

13 A No, it does not retain -- it does not save  
14 any of the binary information.

15 Q And that's true from when Memphis first  
16 became operational in 2015 up until today?

17 A Correct.

18 Q So now we move on to Pocket.

19 Am I fair to assume that Pocket takes the  
20 work that Memphis did and then reaches out to  
21 individual clients using the TCP/IP port number  
22 information?

23 A You are correct.

24 Q So let's walk through that process in a  
25 little bit of detail.

1                   **Does Memphis populate a table with specific**  
2   **IP address and port information?**

3                   **MR. O'BEIRNE: Objection. Vague.**

4                   THE WITNESS: Memphis populates a table  
5 with hash, IP, and port.

6 BY MR. BROPHY:

7           **Q       What's the name of that table?**

8           A       What is that? It starts with an A. If  
9 you'd asked me earlier, I'd remember.

10                  Well, it's in the report that's given. So  
11 I'd have to remember. It's "auto populate ID" or  
12 something of that nature.

13           **Q       And then Pocket reads information from that**  
14 **table?**

15           A       Not directly. Through a -- through a  
16 JDBC -- or I'm so sorry. Getting a little warm, a  
17 little tired -- through a JSP page that reads that  
18 information.

19           **Q       Does Pocket reach out to individual**  
20 **BitTorrent clients using the IP address and port**  
21 **information provided from the JSP page?**

22           A       That is correct.

23           **Q       When Pocket reaches out, what does it do**  
24 **specifically with respect to that client?**

25                   **MR. O'BEIRNE: Objection. Vague.**

1 THE WITNESS: Okay. So it opens up a  
2 socket, starts the BitTorrent protocol, which I  
3 believe hasn't changed, where you open up the socket  
4 and you send in the torrent hash you're looking for.  
5 And they respond in one of many different ways.

6 BY MR. BROPHY:

7 Q Is one of the responses "I don't have  
8 anything"?

9 A Usually that response is they cut  
10 everything -- they close the connection.

11 Q So option A is --

12 A Close the connection and go away.

13 Q Client closes connection. Okay.  
14 What is option B?

15 A Option B is they hold the connection open  
16 and send us a bit field.

17 Q And is that true whether the client is  
18 operating traditionally or with a lazy bit field?

19 MR. O'BEIRNE: Objection. Vague and  
20 confusing.

21 THE WITNESS: Each client is slightly  
22 different. Some, if you hold a connection open long  
23 enough, will eventually populate the full bit field.  
24 Some will only give you a partial lazy bit field.

25 And if they're not operating a lazy bit